

THE AUSTRAL-AFRICAN CONID SUBGENUS  
*FLORACONUS* IREDALE, 1930, TAKEN OFF  
BERMUDA (GASTROPODA: CONIDAE)

Edward J. Petuch

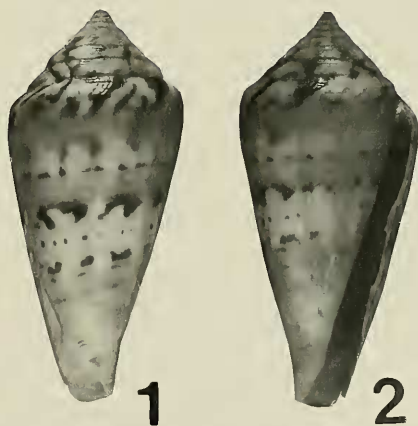
*Abstract.*—Baited lobster traps have recently been used to sample the deep water molluscan fauna of the slope of Bermuda. Among the many unusual gastropods collected was the first known northern Atlantic member of the Austral-African conid subgenus *Floraconus* Iredale, 1930. The discovery of this species, which is geographically widely separated from related forms and is here named *Conus (Floraconus) lightbourni* new species, points to the relict nature of the subgenus.

Mollusks from the deep waters around Bermuda have recently been taken by a novel new collecting technique. This method, undertaken by the well known Bermudan malacologists Messrs. John R. H. Lightbourn and Arthur T. Guest, involves dropping baited lobster traps into deep water and leaving them there for a number of days. At the end of that time, the traps are retrieved and the hermit crab-occupied shells are collected. Since dredging on the steep slope of the Bermuda seamount is difficult, this simple method is proving itself to be the best way to explore the unknown slope fauna.

To date, a large number of interesting new gastropod shells, all occupied by hermit crabs, have been collected from the lobster pots. These include unusual species such as the newly described *Pterynotus lightbourni* Harasewych and Jensen, a number of *Pleurotomaria (Perotrochus)* species, the "Hawaiian endemic" *Gyrineum loisae* Lewis, the eastern and southern Atlantic *Gyrineum olearium* Linnaeus (Jensen, pers. comm.), and the first known northern Atlantic species of the Austral-African conid subgenus *Floraconus* Iredale, 1930. All of these elements give the Bermudan slope fauna a distinctly Indo-Pacific and Japonic appearance.

The subgenus *Floraconus* was previously thought to be restricted to the southern and

eastern shores of Australia and to the Cape Province region of South Africa. Because of this distributional pattern, this conid subgenus may represent a Paleogene relict group, much like the sympatric Austral-African relict volutid genus *Athleta* (Petuch 1981:1127). The presence of *Floraconus* in the northern Atlantic indicates that the group was once very widespread but has survived into the Recent in only three widely separated areas.



Figs. 1, 2. Dorsal and ventral aspects of the holotype of *Conus (Floraconus) lightbourni*, from 497 m off Bermuda.

The new *Floraconus* is the only known truly endemic Bermudan cone shell. A large, common, shallow water species, named *Conus bermudensis* by Clench in 1942, was originally thought to be endemic to the island but has now been found to be conspecific with the widespread western Atlantic *C. mindanus* Hwass, 1792 (Walls 1979:726–730). Along with *C. mus* Hwass, 1792, *C. mindanus*, and *C. villepini* Fischer and Bernardi, 1857, the new *Floraconus* brings the total number of known Bermudan cone species to four. This unexpected mid-Atlantic member of an Austral-African group is described here.

Gastropoda  
Neogastropoda  
Conacea  
Conidae

*Conus* Linnaeus, 1758

*Floraconus* Iredale, 1930

*Conus (Floraconus) lightbourni*,  
new species Figs. 1, 2

*Material examined.*—Holotype: Length 35 mm, width 16 mm, occupied by hermit crab, taken in lobster pot from 180 fathoms (approx. 497 m), 1½ miles (2.5 km) due south of Castle Island, Bermuda, July 1973, by J. R. H. Lightbourn; collection of the Department of Malacology, Delaware Museum of Natural History, DMNH 134938; Paratypes: 3 specimens, lengths 26.0 mm–47.7 mm, same depth and locality as holotype, DMNH 134939; 5 specimens, lengths 22.4 mm–44 mm, collection of Mr. J. R. H. Lightbourn, Bermuda.

*Description.*—Shell elongate, slender, obconical, thin, lightweight; spire elevated; shoulder and spire whorls rounded; body whorl and spire shiny, polished; anterior end of body whorl with numerous faint, raised spiral threads; aperture narrow, straight; base shell color bright orange, overlaid with two wide bands of deep salmon-pink, one at mid-

body, one between mid-body and shoulder; some specimens with third salmon band around anterior end; salmon-pink bands ornamented with rows of large brown spots; spots often coalesce into large brown flammules, usually on either side of central band; some specimens with rows of small brown dots on orange bands; spire salmon-pink with large crescent-shaped brown flammules; protoconch mamillate; interior of aperture pale violet-purple; operculum and periostracum unknown.

*Etymology.*—Named for Mr. John R. H. Lightbourn of Bermuda, in recognition of his many important discoveries of new deep water Bermudan mollusks.

*Remarks.*—The narrow, highly polished body and rounded shoulder of *C. lightbourni* readily separates the new species from any other known western Atlantic cone shell. The new species is closest to the South African *C. (Floraconus) pictus* Reeve, 1843, in color pattern, but is more like the eastern Australian *C. (Floraconus) wallangra* (Garrard, 1961) or *C. (Floraconus) angasi* Tryon, 1883, in shape.

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#### Literature Cited

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Department of Geology, Florida International University, Miami, Florida 33199.